

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference GMW/G22283WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/JP 03/14622	International filing date (day/month/year) 18.11.2003	Priority date (day/month/year) 19.11.2002
International Patent Classification (IPC) or both national classification and IPC C07D209/20		
Applicant TAKEDA CHEMICAL INDUSTRIES, LTD. et al.		

- This International preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 18.12.2003	Date of completion of this report 10.02.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Kollmannsberger, M Telephone No. +49 89 2399-7364 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/JP 03/14622**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):*

Description, Pages

1-465 as originally filed

Claims, Numbers

1-28 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 2; 1-20 (in part)

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 2; 1-20 (in part)

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the Standard.

☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1, 3-20(in part); 21-28
Inventive step (IS)	Yes: Claims	
	No: Claims	1, 3-20(in part); 21-28
Industrial applicability (IA)	Yes: Claims	1-28
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

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Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

- III.1. Due to an overflow of novelty destroying documents for compound claims the search had to be restricted on a combination of claims 5 and 10 (i. e. compounds according to claim 1 in which Z is a cyclic group and ring A is a benzene). The examination thus only covers this subject-matter.
- III.2. No search has been done for unspecified prodrugs of claimed compounds (i. e. claim 2). No examination will thus be made.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

V.1. State of the art:

The documents are numbered consecutively in the order of the listing in the International Search Report.

D3 and D17 are P-documents and will be disregarded during the PCT phase.

V-2. Novelty (Art. 33(2) PCT)

Compound and composition claims are not novel. D1, D2, D3-D16, D18-D20 all disclose compounds included in the searched scope (see passages cited in the search report). Also the use claims 20-26 are not novel since D1 discloses compounds used as somatostatin receptor agonists/antagonists (see claims and example 21 on page 18). Also D2 discloses compounds (see definition of $t=0$ in the definition of R3 in the claims) that overlap with the compounds and uses claimed. D18-D20 disclose compounds included in the scope of claim 28 directed to synthesis intermediates.

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V-3. Inventive step (Art. 33(3) PCT):

Parts of the claims which could be considered novel are covered by the generic disclosures of D1 (the ring system A corresponds to A-B in D1 and W of D1 corresponds to the substituent Z in the present claims, see definitions in paragraphs [0013] to [0049] of D1) as well as D2 (see claims for $t=0$ in R3 of D2). The compounds disclosed in D1 and D2 are disclosed as somatostatin receptor agonists/antagonists, as in the present application. Such a selection can only be considered inventive if the selected compounds present an unexpected advantage in with respect to the compounds disclosed in D1/D2. Such advantages are not apparent from the application documents.

The claims do not fulfil Art. 33(3) PCT